

Comprehensive Rehabilitation in Psychiatry for Physical Independence in Hospitalized Schizophrenic Patients

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Abstract

Background: Physical independence refers to the state of a person who does not need another to carry out activities of daily living. Schizophrenia is among the 10 most disabling diseases.

Objective: Design the comprehensive rehabilitation program for hospitalized adults with schizophrenia.

Methods: Research carried out between January 20, 2018 and February 13, 2022. It integrated techniques and procedures of qualitative and quantitative research. A single group was used. The consultation to specialists was applied. 65 patients with a diagnosis of schizophrenia who had more than six months of hospital stay, less than 60 years old and who were not in their acute phase or flare participated. The program was designed and applied in a period of six months with the participation of the mental health team after their training.

Results: After applying the program, the independent category predominated. Cognitive, affective, behavioral improvement was achieved, as well as positive and negative symptoms. Changes are achieved towards higher levels of rehabilitation. Patients satisfied with the treatment received prevailed. The ten specialists consulted considered the program viable.

Conclusions: A comprehensive rehabilitation program for the hospitalized schizophrenic adult was designed. Viable to be applied, which favored the positive changes obtained in the patients studied once it was applied.

Keywords: physical independence; schizophrenia, program; comprehensive rehabilitation

Introduction

Physical independence refers to the state of a person who does not need another to carry out activities of daily living (ADL), it means that they do not depend on another to do something, or that they do not want to depend [1]. Functional dependency is considered as a state in which a person, product of a physical, mental or social deficiency, needs assistance or help to carry out their daily tasks [2,3]. The population of schizophrenic patients who suffer from a high degree of disability, is considered by the World Health Organization (WHO) within the 10 most disabling diseases, [4] they have the aggravating circumstance that a deterioration in their habits and abilities has affected them [5]. People who suffer from schizophrenia, a severe mental disorder, have affected thinking, emotions and behavior, this disease is present in one person in 100 [6].

Making adults with schizophrenia maintain their independence in terms of performing ADLs is of vital

importance [7]. These adults need to be kept autonomous and independent, and for this it is necessary to preserve the general state they have. The encouragement to perform physical activities is a way to keep them active. Just as important is motivating them to participate in a series of activities that involve personal and social actions. It is also important to surround them with affection where the family plays a leading role. Reports of studies indicate a significant relationship between adult autonomy and independence and their deterioration as a result of institutionalization [8]. The integral rehabilitation of the schizophrenic adult must be carried out depending on the characteristics of each one of those who are going to be treated, with the aim of achieving physical independence in ADL.

The maintenance or incorporation of vocational aspects in these patients, the improvement in the behavioral and affective sphere, would lead to a possible social reintegration in those patients with

greater possibilities of adaptation to the environment [9]. For this, it is necessary to carry out a comprehensive rehabilitation. In the international and national environment, research has been carried out on rehabilitation in schizophrenia [10, 11, 12, 13] and studies have also been carried out with the application of rehabilitation programs in these patients [14,15]. When these are analyzed, it can be observed that there are deficiencies regarding the systemic approach of the psychological spheres: cognitive, affective and behavioral. In several of these investigations, the analysis of the improvement of the positive and negative symptoms of these patients based on achieving their physical independence in the ADLs is not included.

In this sense, it is necessary to have ways with which and how to act to improve the physical independence of hospitalized adult schizophrenic patients. This rehabilitation will be with an integrative and holistic approach where the patient is seen from the biopsychosocial and spiritual, as well as the approach to the cognitive, affective and behavioral psychological spheres as a whole. The authors set themselves the objective to design the comprehensive rehabilitation program for the hospitalized schizophrenic adult. This program was valued by specialists and the physical independence of those studied was evaluated after it was introduced.

Method

The study integrated techniques and procedures of qualitative research, of the participatory action research type, and of quantitative research with the use of a pre-experiment with pre- and post-test examinations. A single group was used, through the application of the comprehensive rehabilitation program for the hospitalized schizophrenic adult. Observation [16] in a personalized way was applied before, during and after applying the program to directly corroborate the improvement of these patients. This was carried out by the authors of this research. Consultation with specialists [17] was used to assess the feasibility of the program as well as the actions and activities included in it as a consensus method with the application of the Feasibility Test. These specialists took into account the theory that supports the research, the coherence between the qualitative data, the theoretical foundations and the construction of the program, strategic planning as a method for the practical application of the program and its graphic representation. Sixty-five patients with

a diagnosis of schizophrenia were studied, according to the Diagnostic and Statistical Manual of Mental Disorders in its fifth edition (DMS V) [18]. These patients had the characteristics of having a hospital stay of more than six months, less than 60 years of age, and not in their acute phase or flare. Patients were selected from the long-stay male and female wards, as well as from the forensic psychiatry ward where male and female patients were selected. The entire investigation was carried out between January 20, 2018 and February 13, 2022.

Based on their characterization, [8] the rehabilitation program for hospitalized schizophrenic patients was designed, taking into account their needs and characteristics. This program was applied in a period of six months to the selected group with the participation of the mental health team of the aforementioned services, after training them. The training directed to the mental health group that participated in the investigation, started from the evaluation of the level of information that they had about comprehensive rehabilitation for hospitalized schizophrenic patients. The program has activities aimed at the implementation of a system of actions in the short, medium and long term that allows the transformation of the direction of the process. It includes the change of rehabilitation implementation established until now, activities that intervene in the conative, cognitive and affective psychological areas or spheres are carried out.

The improvement of the symptoms is pursued, such as the strengthening of the musculoskeletal system that favors physical independence and better locomotion. Resocialize the affected individuals, decrease the characteristic apathy in these patients, reincorporate adequate hygiene habits, as well as what is related to the activities of daily life. The proposal contains actions with a coherent, systemic and holistic nature, which are part of the center's work system. The patients included in the sample for this study were redistributed, according to the degree of deterioration in correspondence with the levels of rehabilitation, [19] in cubicles (named pavilions of the wards where they were admitted) ranging from the high degree of deterioration (severe) and with high care needs, passing through moderate functioning, up to reaching schizophrenic patients with high functioning and absent or slight deterioration.

All the cubicles met the characteristics established for this type of patient: without architectural barriers, with the bathroom areas of the rooms adjusted to the

security and adaptive measures established, according to regulations to avoid disabilities or future limitations. The methods and procedures for the achievement of determined objectives with a specific time were taken as a basis. The Positive and Negative Symptom Scale (PANSS) [20] was applied before and after the comprehensive rehabilitation of the institutionalized adult with schizophrenia was applied in order to define the improvement of their symptoms. The physical independence of those studied was evaluated taking into account their evolution towards higher rehabilitation levels. The satisfaction of the patients in relation to the rehabilitation received was assessed to understand and examine in a more detailed and close way the effects caused by the different treatment interventions in each patient.

The information was processed through the methods of descriptive statistics, through percentage analysis. With the results achieved, a database in tables was elaborated with the Microsoft Office Excel 2011 processor. The numbers with their percentages were interpreted. The statistical program SPSS version 20.0 for Windows was used. Conclusions were reached after comparing them with the scientific literature consulted. The study was analyzed and approved by the Ethics Committee of the Scientific Council of the Dr. Faustino Pérez Hernández Faculty of the Sancti Spiritus University of Medical Sciences and by the Directorate of the Sancti Spiritus Provincial Teaching Psychiatric Hospital. The primary data were used by the basic health team that cared for the patients only for research purposes, observing the provisions of the Declaration of Helsinki [21].

Results

The process was evaluated from the beginning and during the application of the program. The outcome evaluation criteria were measured through the pre-experiment with a pre- and post-test group. The statistical processing was focused on identifying the most affected dimensions in schizophrenic adults and measuring these dimensions of the scale after having applied the program. The result-change and cause-effect relationship was assessed. In the second case, it is a matter of determining to what degree the desired result or change is achieved, that is, to what extent the objective is met and for this it is necessary to have data from before and after.

The evaluation of the program was carried out according to the results with the application of the methods used in the initial characterization and the establishment of significant differences was verified in the comparison of the group before and after in a longitudinal way, in relation to the declared variable: physical independence with affective, cognitive, behavioral improvement and of the positive and negative symptoms of the entity under study of the hospitalized schizophrenic adult. This is the evaluation that was planned to be carried out in the investigation. The essential thing was to measure the change in terms of the physical independence of the patients studied. Before applying the program, the Minimum dependent category prevailed with 33 schizophrenic adults, for 50.77%, and after applying the program, the independent category prevailed with 47 schizophrenic adults for 72.3%, as shown in Table 1.

Table 1: Description of the results of the physical independence of hospitalized adults with schizophrenia before and after the introduction of the comprehensive rehabilitation program.

Physical Independence Level	Before applying the rehabilitation program		After applying the rehabilitation program	
	#	%	#	%
Dependent	13	20	5	7,7
Minimum dependent	33	50,77	13	20
Independent	19	29,23	47	72,3
Total	65	100	65	100

Source: Clinical history

In order to define physical independence in these patients, the improvement of the conditions they presented in the cognitive, affective and behavioral psychological spheres was evaluated. This

improvement is reflected in Table 2 where a before and after of these patients is compared in relation to the application of the rehabilitation program.

Table 2: Description of the results of the condition of the psychological spheres of hospitalized adults with schizophrenia before and after the introduction of the comprehensive rehabilitation program.

Affected psychological spheres	Before		After	
	#	%	#	%
Cognitive	65	100	17	26,15
Affective	39	60	5	7,7
Behavioral	63	96,92	5	7,7

Source: Clinical history.

It is pertinent to point out that in these patients the objective was to improve these spheres, given the characteristics of the disease they suffer from, a total remission was not possible. But if it was possible to achieve that they had a better response to the problems with socialization, problem solving, communication and independence for AIVD.

Positive and negative symptoms is another characteristic of patients diagnosed with schizophrenia. The improvement of these is undoubtedly a fundamental factor that helps the independence of the patient. The changes achieved in those studied are reflected in Table 3.

Table 3: Description of the results on the positive and negative symptoms of hospitalized adults with schizophrenia before and after the introduction of the comprehensive rehabilitation program.

Present symptoms	Before		After	
	positive symptoms			
	#	%	#	%
Delusions	23	35,38	5	7,7
Thought disorganization	65	100	5	7,7
Hallucinatory behavior	34	52,3	5	7,7
Excitement	43	66,15	5	7,7
Grandiosity	13	20	11	16,92
Suspicion/prejudice	10	15,38	4	6,15
Hostility	47	72,30	5	7,7
Negative symptoms				
Affective blunting	57	87,69	5	7,7
Affective withdrawal	35	53,84	5	7,7
Poor contact	16	24,61	5	7,7
Social withdrawal	11	19,92	5	7,7
Difficulty in abstract thinking	63	96,92	57	87,69
Absence of spontaneity	48	73,84	5	7,7
Impaired fluency in conversation	19	29,23	5	7,7

Source: Clinical history.

Of the present symptoms in which less improvement was achieved once the program was applied, they were in relation to grandiosity and difficulty for abstract thought. Despite this, the changes achieved influence

the better independence of the ADLs in those studied. To define physical independence in those studied, changes to higher levels of rehabilitation were essential. This is shown in table 4.

Table 4: Description of the results of the rehabilitation levels of hospitalized adults with schizophrenia before and after the comprehensive rehabilitation program was introduced.

Rehabilitation level	Before		After	
	#	%	#	%
1	13	20	5	7,7
2	18	27,7	4	6,15
3	15	23,07	9	13,84
4	19	29,23	47	72,30

Source: Clinical history.

Changes in rehabilitation levels are achieved. Level 4 was always the most representative but the changes towards higher levels were in all. Once the program was completed, the technique of using reported

results [22] was used to determine the satisfaction of the patients participating in the study in relation to the treatment received. It was verified that they felt satisfied with the treatment received in 96.92%, two

of them stated that they were very satisfied. The ten specialists consulted considered the program viable. They were of the opinion that it was possible to identify the problems and prioritize them, as well as the strengths, weaknesses, opportunities and threats of the environment in which these patients are found, in order to develop tasks that solve the problem through an action plan. All subjects are involved. They consider its use novel and highlight the leading role of the mental health group in organizing and conducting the process.

When these results are analyzed, it can be seen how the changes achieved in these patients are concatenated with each other to give way to a more independent patient. The five patients who remained in level 1 of rehabilitation, the most dependent, are the ones who presented the least favorable changes in the psychological spheres and symptoms after the application of the program.

Discussion

Patients with long hospital stays suffer deterioration in some of the ADLs [23]. In cases involving patients with severe mental disorders, such as schizophrenia, this deterioration is usually greater. When any rehabilitation action is carried out with schizophrenic patients, it must be done in an integral way, taking into account working on all aspects of the patients. Special importance must be given to fostering social relations, providing ways for them to face the problem of stigma, trying to achieve employment and not failing to give them the necessary psychoeducational support to prevent future relapses. The fundamental objective when working on the rehabilitation of hospitalized patients with schizophrenia is the future social reintegration with the reduction of readmissions. For this, it is necessary to achieve in these patients that they reach a progressive responsibility that involves them in the management and provision of services, based on their own experience in dealing with their mental health problems.

Studies such as those carried out by González et al., [24] Dorado and Castallo, [25] as well as the study carried out by Reinante et al., [26] show that the application of programs aimed at the rehabilitation of schizophrenic patients favor changes towards satisfactory results in terms of cognitive improvement of those studied. The results of the present one coincides in part with those mentioned above, except that the current one is based on an integration of the

three psychological spheres and is directed at the long-stay hospitalized patient. In the opinion of the authors, cognitive rehabilitation is one of the most developed in the psychological field with the objective of achieving changes that in the long run are manifested in that these patients have better social relationships. Comprehensive work with hospitalized schizophrenic patients will have to take into account the need to bring the three psychological spheres together, as well as the negative and positive symptoms that these patients present. The authors agree with Tortosa, [27] in his thesis he raises the need for the interventions that are carried out to be adapted to the needs of the patient, taking into account the positive and negative symptoms of the disease. The same coincides with Cruz, [28] when he raises the importance of promoting adequate personal hygiene and eating habits, achieving an adequate perception of the risks of accidents in daily life and the practice of physical and leisure activities.

The research presented was based on the application of a program that contained actions and activities aimed at integrating or reinforcing adequate hygienic eating habits, getting the patient to participate in solving the problems that he may present, including those of his underlying disease as comorbidities. The improvement of the symptoms presented by these patients will be essential to achieve a better social interaction of the same according to the criteria of the researchers of the current study. Taking into account the levels of rehabilitation, patients can be grouped according to the degree of independence. This helps the distribution of resources, human and material, for the best patient care. All treatment applied to patients with psychiatric disorders must include work and socialization areas without neglecting the fact that the patient presents and maintains a healthy image. When rehabilitation actions are applied in patients with schizophrenia, they manage to improve the level of independence in ADL and IADL. Managing to keep these patients less and less dependent on a caregiver brings with it important social, economic and psychological improvements not only for the patients, but also for their families and the community where they will have to reintegrate.

Rehabilitation in psychiatry for hospitalized patients cannot be seen as a set of interventions that are carried out during their stay in the center. This includes biopsychosocial procedures that improve the functioning of the sick person, reduces the limitations of their disability seen as disadvantages compared to

others, all of which mitigates the impact of the stigma that exists on these people. When the quality of life in schizophrenic patients is improved, an increase in the social and economic productivity of the affected person is achieved. Every society must have concern for its members in vulnerable situations, such is the case of people suffering from mental disorders, these constitute an important public health problem. It is essential to prevent discrimination against these patients and to promote or secure employment opportunities for them once they integrate into society. The variation in the severity and duration of the manifestations of schizophrenia differ between an individual with long hospitalization dates and one who remains in society. This leads to the fact that when applying educational and health rehabilitation interventions in hospital environments, the needs of the patient are taken into account and the family is involved as well as societal factors. To achieve success in the treatments that are applied, it is very necessary to know the acceptance of these in patients.

In the case of chronic diseases such as schizophrenia, in which there is a greater probability of abandoning treatment, it will be beneficial to know the degree of patient satisfaction and their subjective experience to predict compliance and help modify decision-making [22]. When Calle's thesis is studied, [29] it is evident that patients with greater satisfaction in relation to the treatment received have better adherence to it. The authors of this research agree with what was stated by Fernández et al. [30] The study of the satisfaction of psychiatric patients with mental health services is extremely important due to the influence it can exert on adherence to treatment and clinical evolution. The satisfaction of these patients constitutes an indicator of the quality of said services and a predictor of cooperation with the treatment. Consultation with specialists in a specific subject is of vital importance before putting into practice any set of actions and activities, such as health programs, in order to achieve the best results. These specialists must have proven experience in the sections that will be consulted with vast knowledge in them, as expressed by Fuentes et al [17]. This route is useful when some intervention methodology is applied in small populations to get an idea of its effectiveness and to apply it on a larger scale.

The comprehensiveness of the proposed rehabilitation is based on the vision of the Physical Medicine and Rehabilitation specialty, together with the rest of the mental health team with their

integrated points of view. Any rehabilitative process in psychiatry must take into account the improvement of the clinical picture of the patients to whom it is directed from the biopsychosocial and spiritual point, to favor the best social and functional interaction of these people in a full sense. The limitation of this study is that it was developed in the same institution that cares for psychiatric patients with a small sample to be investigated. The resources available to the hospital were used without being able to guide activities with computerized means. It developed all the time in the hospital environment.

Conclusions

A comprehensive rehabilitation program for the hospitalized schizophrenic adult was designed, considered viable by the specialists consulted to be applied, which favored the positive changes obtained in the patients studied once it was applied. This program made it possible for a greater number of patients to reach levels of independence with cognitive, affective and behavioral improvement, as well as the positive and negative symptoms present.

Conflicts of interest

The authors declare not to have any interest conflicts.

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